

COMPOSITIONS AND METHODS FOR TREATING MALARIA WITH CUPREDOXIN AND CYTOCHROME

Publication number: WO2006127477

Publication date: 2006-11-30

Inventor: CHAKRABARTY ANANDA (US); GUPTA TAPAS DAS (US); YAMADA TOHRU (US); CHAUDHARI ANITA (US); FIALHO ARSENIO (PT); HONG CHANG SOO (US)

Applicant: TRUSTEES OF THE UNIVERSITY OF (US); CHAKRABARTY ANANDA (US); GUPTA TAPAS DAS (US); YAMADA TOHRU (US); CHAUDHARI ANITA (US); FIALHO ARSENIO (PT); HONG CHANG SOO (US)

Classification:

- International: C07K14/195; C07K14/82; C07K14/195; C07K14/82;

- European:

Application number: WO2006US19492 20060519

Priority number(s): US20050682813P 20050520; US20050244105 20051006; US20060780868P 20060310

Also published as:

WO2006127477 (A2)

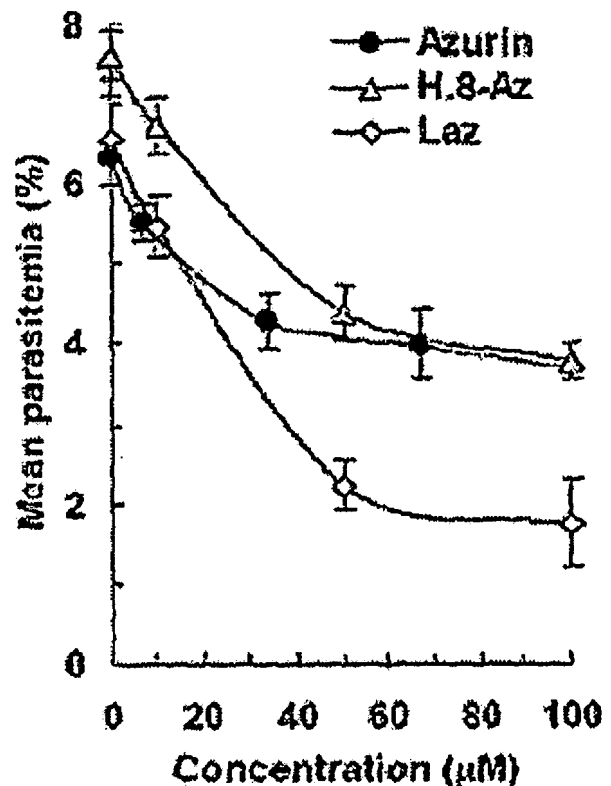
Cited documents:

WO2005018662
US2003059436
XP003008925
XP004454238
XP003008926

[Report a data error here](#)

Abstract of WO2006127477

The present invention relates to cupredoxin and cytochrome and their use, separately or together, to inhibit the spread of parasitemia in mammalian red blood cells and other tissues infected by the malaria parasite, and in particular the parasitemia of human red blood cells by *P. falciparum*. The invention provides isolated peptides that are variants, derivatives or structural equivalents of cupredoxins or cytochrome c, and compositions comprising cupredoxins and/or cytochrome c, or variants, derivatives or structural equivalents thereof, that are useful for treating or preventing malaria infection in mammals. Further, the invention provides methods to treat mammalian patients to prevent or inhibit the growth of malarial infection in mammals. The invention also provides methods to prevent the growth of malaria infection in insect vectors.



Data supplied from the **esp@cenet** database - Worldwide

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
30 November 2006 (30.11.2006)

PCT

(10) International Publication Number
WO 2006/127477 A3

(51) International Patent Classification:
C12P 21/04 (2006.01)

(74) Agents: **PELTO, Don et al.**; Preston Gates Ellis & Rouvelas Meeds LLP, 1735 New York Avenue, NW, Suite 500, Washington, District Of Columbia 20006 (US).

(21) International Application Number:
PCT/US2006/019492

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 19 May 2006 (19.05.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/682,813 20 May 2005 (20.05.2005) US
11/244,105 6 October 2005 (06.10.2005) US
60/780,868 10 March 2006 (10.03.2006) US

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ILLINOIS** [US/US]; 352 Henry Administration Building, 506 Wright Street, Urbana, Illinois 61801 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **CHAKRABARTY, Ananda** [US/US]; 206 Julia Drive, Villa Park, Illinois 60181 (US). **GUPTA, Tapas, Das** [US/US]; 1317 Jackson Avenue, River Forest, Illinois 60305 (US). **YAMADA, Tohru** [JP/US]; 903 South Cuyler Avenue, Apt. 2, Oak Park, Illinois 60304 (US). **CHAUDHARI, Anita** [US/US]; 23C Coachman Square, Clifton Park, New York 12065 (US). **FIALHO, Arsenio** [PT/PT]; Praceta Maestro Ivo Cruz, Lote 23 3 Esq, P-1500-401 Lisbon (PT). **HONG, Chang, Soo** [KR/US]; 901 South Ashland Avenue, Chicago, Illinois 60607 (US).

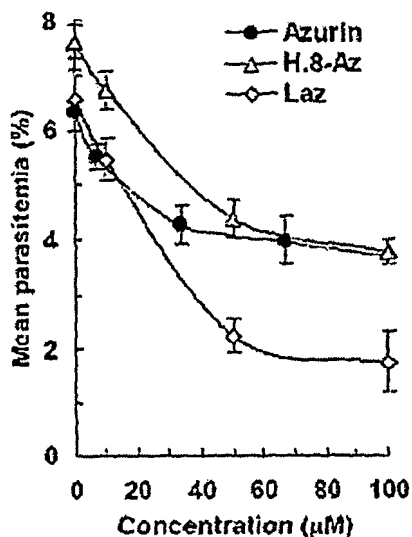
Published:

— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:
8 March 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMPOSITIONS AND METHODS FOR TREATING MALARIA WITH CUPREDOXIN AND CYTOCHROME



(57) Abstract: The present invention relates to cupredoxin and cytochrome and their use, separately or together, to inhibit the spread of parasitemia in mammalian red blood cells and other tissues infected by the malaria parasite, and in particular the parasitemia of human red blood cells by *P. falciparum*. The invention provides isolated peptides that are variants, derivatives or structural equivalents of cupredoxins or cytochrome c, and compositions comprising cupredoxins and/or cytochrome c, or variants, derivatives or structural equivalents thereof, that are useful for treating or preventing malaria infection in mammals. Further, the invention provides methods to treat mammalian patients to prevent or inhibit the growth of malarial infection in mammals. The invention also provides methods to prevent the growth of malaria infection in insect vectors.